

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB2005/001087

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F16H55/14 F16H57/00 F16D3/52 F04C29/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F16D F16H F04C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 344 945 A (EATON CORPORATION) 6 December 1989 (1989-12-06) claim 1; figures 2-6	1-3, 5, 8, 14, 16-18
X	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 04, 2 April 2003 (2003-04-02) & JP 2002 349672 A (MITSUBISHI MOTORS CORP), 4 December 2002 (2002-12-04) abstract; figures 1, 3	1-9, 12, 14-17
X	US 86 533 A (JOHN HAFFNER) 2 February 1869 (1869-02-02) figure 5	1-5, 8, 14, 17, 18
X	US 5 692 410 A (FENELON ET AL) 2 December 1997 (1997-12-02) the whole document	1-11, 14, 17, 18
-/--		

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *&* document member of the same patent family

Date of the actual completion of the international search

10 June 2005

Date of mailing of the international search report

22/06/2005

Name and mailing address of the ISA

European Patent Office, P.O. 6818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Meyer, T

INTERNATIONAL SEARCH REPORT

Int.al Application No

PCT/GB2005/001087

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BE 488 019 A (STAATSMIJNEN NEDERLAND) 15 April 1949 (1949-04-15) page 4, line 2 - line 29; figures 1-3 -----	1-8, 14, 17, 18
X	US 5 259 261 A (MICHEL ET AL) 9 November 1993 (1993-11-09) column 2, line 46 - line 62 -----	1-5, 8, 14, 17, 18
X	EP 0 987 471 A (BORG-WARNER AUTOMOTIVE, INC) 22 March 2000 (2000-03-22) paragraph '0034! - paragraph '0053! X paragraph '0051!; figure 5 -----	1-11, 14, 17, 18
X	US 3 991 818 A (WAGNER ET AL) 16 November 1976 (1976-11-16) the whole document -----	1-5, 8-12, 14, 17, 18
X	DE 29 41 117 A1 (FABBRICA ITALIANA MAGNETI MARELLI S.P.A) 24 April 1980 (1980-04-24) the whole document -----	1, 17, 18
X	DE 34 03 259 C1 (BROSE FAHRZEUGTEILE GMBH & CO KG, 8630 COBURG, DE) 14 August 1985 (1985-08-14) the whole document -----	1, 17, 18
X	US 5 787 755 A (PERIOU ET AL) 4 August 1998 (1998-08-04) the whole document -----	1, 17, 18
X	SU 1 078 159 A1 (VOROSHILOVGRADSKIJ MASHINOSTROITELNYJ INSTITUT) 7 March 1984 (1984-03-07) figures 1, 2 -----	1, 13, 17
A	DE 101 14 079 A1 (CARL FREUDENBERG KG) 2 October 2002 (2002-10-02) column 4, line 2 - line 8; figure 1 -----	13
A	US 5 893 355 A (GLOVER ET AL) 13 April 1999 (1999-04-13) the whole document -----	1, 15-18

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2005/001087

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0344945	A	06-12-1989	US 4924839 A	15-05-1990
			DE 68904987 D1	01-04-1993
			DE 68904987 T2	09-09-1993
			EP 0344945 A2	06-12-1989
			JP 2037113 A	07-02-1990
			JP 2772976 B2	09-07-1998
JP 2002349672	A	04-12-2002	NONE	
US 86533	A		NONE	
US 5692410	A	02-12-1997	US 5452622 A	26-09-1995
			US 5307705 A	03-05-1994
			AU 6092696 A	30-12-1996
			WO 9641087 A1	19-12-1996
			US 5653144 A	05-08-1997
			US 5943913 A	31-08-1999
			AU 6298294 A	29-08-1994
			CA 2155507 A1	18-08-1994
			EP 0682755 A1	22-11-1995
			JP 8506649 T	16-07-1996
			WO 9418476 A1	18-08-1994
BE 488019	A		NONE	
US 5259261	A	09-11-1993	EP 0514565 A1	25-11-1992
			CA 2068916 A1	22-11-1992
			DE 59105461 D1	14-06-1995
EP 0987471	A	22-03-2000	US 6234127 B1	22-05-2001
			EP 0987471 A2	22-03-2000
US 3991818	A	16-11-1976	NONE	
DE 2941117	A1	24-04-1980	ES 252971 Y	16-10-1981
			FR 2438764 A1	09-05-1980
DE 3403259	C1	14-08-1985	NONE	
US 5787755	A	04-08-1998	FR 2699621 A1	24-06-1994
			CN 1094115 A	26-10-1994
			EP 0607718 A1	27-07-1994
			JP 6323398 A	25-11-1994
			MX 9308007 A1	31-08-1994
SU 1078159	A1	07-03-1984	NONE	
DE 10114079	A1	02-10-2002	NONE	
US 5893355	A	13-04-1999	NONE	